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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,976	06/27/2002	Robert Iannucci	851663.433USPC	6619

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EXAMINER

CUNNINGHAM, TERRY D

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/088,976

Applicant(s)

IANNUCCI ET AL.

Examiner

Terry D. Cunningham

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Summary of changes in this action***

1. The critical feature rejection to claims 8-14 and the indefiniteness rejections to claims 2-7 have been overcome.
2. The art rejections have been overcome. Examiner has found Applicant's remarks concerning claims 8-14 persuasive. The remaining claims are allowable in view of the art for reasons already stated of record.

### ***Drawings***

The drawings are objected to for the reasons discussed below in the enablement rejection under 35 U.S.C. § 112, first paragraph. This is due to the fact that it is not clear as to whether a dot connection is required in Figs. 1 and 5.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-14 and 16-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to adequately disclose how to make and use the invention. This is because it is not clear as to how Vref is generated. While it is not seen that the specification discusses Vref with respect to Fig. 5, the specification states, in lines 6-7 of page 3, concerning Vref of Fig. 1 that “a reference ‘bandgap’ voltage is obtained at the base of Q1 and Q2, such that the value is almost constant over temperature”. However, it is not seen possible that Vref can be generated because this line is only connected to the gates of Q1 and Q2 and to the inverting input of comparator 4. With such connections, it is not seen that Vref can be generated. It appears perhaps that there should be a dot connection shown between line Vref and the collector of Q2, however, this is not clear.

Examiner has fully considered Applicant’s remarks for the above rejection and has not found them to be persuasive. Pages 10 and 11 of the remarks provide a specific technical discussion of the circuit operation of Fig. 5. The problem has to do with the discussion on page 11 which provides the statement “if we assume that the base current of Q1 and Q2 are very small”. However, it is not understood how a “current” can be provided in that the bases of Q1 and Q2 since such are only connected together and to the inverting input of comparator COMP. Applicant then goes on to provide the conclusion “ $V_{ref} = V(R2) + V(R1) + V_{be}$ ”. However, this statement is only true if transistor Q2 is on or conducting. For transistor Q2 to be on or conducting, it is required that there be some nominal voltage at the base thereof (i.e., the common connection of the bases of Q1 and Q2 and the inverting input of COMP). However, with the connections shown, it is not seen possible that there can be any nominal voltage at the base of Q2.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-14 and 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, it is not understood how the circuit can operate without the above discussed critical features. In lines 12-21, there is no function or purpose recited for the “compensation circuit”.

Examiner has fully considered Applicant’s remarks for the above rejection and has not found them to be persuasive. Applicant remarks that “there is no requirement for the claim to recite a function or purpose. It is sufficient for the claim structures to have a function of purpose, which would be clear to one skilled in the art in view of the discussion in the specification.” This statement is not understood. The claim recites this subject matter in broad terminology (i.e., “compensation circuit”), thus allowing recitation without requirement of all necessary elements. Since the claim is reciting a broad “compensation circuit”, without reciting all required elements therein, it is not seen that one can glean the “function or purpose” of the “compensation circuit”. Further, one skilled in the art is to look to the specification for disclosure and definition of the invention, however, it is not appropriate to look to the specification for claim substance and limitations. Without such a recitation, it is not understood what the “purpose or function” of the claimed invention is, thus the claim is indefinite. Therefore, the “requirement” for this recitation would on to provide definiteness.

Claims 9-10 are rejected for the reasons discussed above with claim 8.

Claims 11-14 are rejected for similar reasons as claims 8-10.

In claim 15, lines 12-13, there is no support found in the specification for the “second current mirror having first and second outputs”. As seen in Fig. 5 and understood from the

specification, current mirror 7 has an output providing a current to the “sensing device” R3 and an input receiving a current from “compensation circuit” 10. In lines 14-15, there is no function or purpose recited for the “compensation circuit”. Additionally, there is no support found in the specification for the “compensation circuit having first and second inputs”. As seen in Fig. 5 and understood from the specification, “compensation circuit” 10 has an input receiving a current from “current mirror” 6 and an output providing a current to “current mirror” 7.

Claims 16-19 are rejected for the reasons discussed above with claim 15.

Examiner has fully considered Applicant’s remarks for the above rejection and has not found them to be persuasive. Contrary to Applicant’s remarks, designation of inputs and outputs for current has little to do with the polarity of the current. Examiner agrees that, for example, current I2 flows from element 7 to element 10. However, the branch element 7 receiving the current I2 from element 10 is conventionally referred to as the input side of the current mirror because such is receiving I2 and is providing the mirrored output current to R3. This mirroring is due to the diode connection of the input side of 7. Further, element 10 would clearly be outputting I2 because it is generating I2, regardless of the fact that the current is flowing through element 10 to ground. The remaining remarks have not been found persuasive for similar reasons as claim 8.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

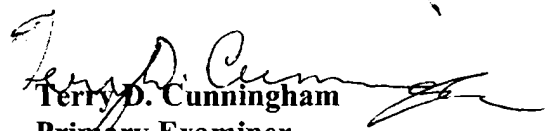
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC  
January 7, 2004

  
Terry D. Cunningham  
Primary Examiner  
Art Unit 2816